

What is claimed is:

1. An oscillation circuit having an oscillation source and a main circuit portion connected by a signal path to the oscillation source and driven by the oscillation source,  
5 the main circuit portion comprising:  
an inverter connected to the oscillation source by the signal path;  
a feedback resistor connected between the output side and the input side of the inverter;  
an element that galvanically separates the signal path between an input terminal  
10 of the signal path and the input side of the inverter; and  
a potential stabilization circuit that connects the input terminal side of the signal path to a circuit portion with a stabilized potential through an element that functions as a resistor.
- 15 2. The oscillation circuit as defined in claim 1,  
wherein the circuit portion with a stabilized potential is one of a constant voltage side, a reference potential side, the input side of the inverter, the output side of the inverter, and the output side of the oscillation source.
- 20 3. The oscillation circuit as defined in claim 1,  
wherein the potential stabilization circuit connects the input terminal side of the signal path to an output terminal side of the signal path through the element that functions as a resistor.
- 25 4. The oscillation circuit as defined in claim 3,  
wherein the element that functions as a resistor is set to have a resistance together with the feedback resistor within the range of 10 to 100 MΩ.

5. The oscillation circuit as defined in claim 1,  
wherein the potential stabilization circuit applies a bias voltage to the input terminal side of the signal path, through the element that functions as a resistor.

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6. The oscillation circuit as defined in claim 1,  
wherein the potential stabilization circuit is configured in such a manner that one end of the feedback resistor, which is connected by the other end to the output side of the inverter, is connected to the input terminal side of the signal path, instead of to the  
10 input side of the inverter.

7. The oscillation circuit as defined in claim 6,  
wherein a bias voltage is applied to the input side of the inverter through the element that functions as a resistor.

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8. The oscillation circuit as defined in claim 1,  
wherein the potential stabilization circuit is formed by connecting the element that functions as a resistor, parallel to the element that galvanically separates the signal path.

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9. The oscillation circuit as defined in claim 8,  
wherein the element that functions as a resistor is set to have a resistance value that is larger than a resistance value of the feedback resistor.

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10. The oscillation circuit as defined in claim 1,  
wherein the main circuit portion is formed as a semiconductor device, and  
wherein the oscillation source is an oscillator with one end being connected to

the input terminal of the signal path and the other end being connected to an output terminal of the signal path.

11. The oscillation circuit as defined in claim 1,

5 wherein the element that functions as a resistor is formed by using polysilicon.

12. The oscillation circuit as defined in claim 1,

wherein the element that galvanically separates the signal path is a DC-cutting capacitor that is formed by overlaying a dielectric layer that overlays a semiconductor  
10 substrate with an electrode layer, a dielectric layer, and another electrode layer.

13. The oscillation circuit as defined in claim 1,

wherein the element that galvanically separates the signal path is a DC-cutting capacitor formed by overlaying a diffusion region on a semiconductor substrate with a  
15 dielectric layer and an electrode layer, and

wherein the diffusion region is connected to the input side of the inverter, and the electrode layer is connected to the input terminal side of the signal path.

14. The oscillation circuit as defined in claim 1,

20 wherein an electrostatic protection circuit is provided on the input terminal side of the signal path, and

wherein the electrostatic protection circuit comprises:

a first protection circuit connected between the signal path and a predetermined constant voltage side, for causing any electrostatic voltage of a first polarity that  
25 intrudes into the signal path to be bypassed selectively to the constant voltage side through a plurality of first semiconductor rectifier elements connected in series; and

a second protection circuit connected between the signal path and a reference

potential side, for causing any electrostatic voltage of a second polarity that intrudes into the signal path to be bypassed selectively to the reference potential side through a plurality of second semiconductor rectifier elements connected in series.

5    15.    An electronic apparatus comprising the oscillation circuit as defined in claim 1 and a functional portion that is controlled on the basis of an output of the oscillation circuit.

10    16.    A timepiece comprising the oscillation circuit as defined in claim 1 and a time display portion that displays time based on an output of the oscillation circuit.